



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D412-742-013
Job Sheet 175921



005145

Part No: D412-742-013

Job Qty: 1 ea

Part Name: Skidtube Fits LH or RH High Gear, DART (Apical) Tri-Bag Float Compatible



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/12/18

Job Tracking No:

Due Date: 5/25/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: IPP Rev: A 05.10.13 New Issue KJ/JLM IPP Rev: B 06-06-08 As per DSI9336 JLM IPP Rev: C 07-05-28 As per Rev C JLM IPP rev D 07.11.01 ecn 1053P EC IPP rev E 07.11.27 ecn 1072 EC verified: DD IPP Rev: F 08-09-08 ecn 08-510 DD verified: EC IPP Rev: G 09-01-23 as per DSI9441 DD verified: EC IPP Rev: H 11.11.01 as per DSI9517 REV: B DD verified: EC IPP rev: I 12.01.12 PER IIN REV: E DD VERF: JLM IPP REV: J 17.05.10 AS PER CHG010 DD VERF: JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Start up Operation	1 Ea	5/25/18	5/25/18	0.00	0.00	Start Up Stores/Pkg-1		AUG 24 2018
115	Packaging	1 pcs	5/25/18	5/25/18	0.00	0.00	Packaging1-4		AUG 24 2018
120	QC	1 pcs	5/25/18	5/25/18	0.00	0.00	QC4		69
125	DC	1 pcs	5/25/18	5/25/18	0.00	0.00	DC		9-89 DAS
130	Packaging	1 pcs	5/25/18	5/25/18	0.00	0.00	Packaging3-2		69
140	QC21-FG	1 Ea	5/25/18	5/25/18	0.00	0.00	QC21		9-89 DAS

Part Op 125 - Photocopy bluefile and create labels per PPP D412-742-013 CHG0010
Descriptions: 130 - Identify and pack for shipping as per PPP D412-742-013

AUG 30 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
AN3C37A	Bolt	1 Ea (1 ea)	110-Start up Operation	5064011
AN3C40A	Bolt	1 Ea (1 ea)	110-Start up Operation	5008246
AN3C41A	Bolt	1 Ea (1 ea)	110-Start up Operation	5004930
AN3C42A	Bolt	1 Ea (1 ea)	110-Start up Operation	5041523
AN3C43A	Bolt	4 Ea (4 ea)	110-Start up Operation	5049456
AN3C46A	Bolt	5 Ea (5 ea)	110-Start up Operation	5024836
AN4C47A	Bolt	4 Ea (4 ea)	110-Start up Operation	5041524
AN4C52A	Bolt	4 Ea (4 ea)	110-Start up Operation	5037892
AN4C53A	Bolt	4 Ea (4 ea)	110-Start up Operation	FM137198
AN4C6A	Bolt	16 Ea (16 ea)	110-Start up Operation	5027515
AN4C7A	Bolt	4 Ea (4 ea)	110-Start up Operation	5027516 X3 5095478 X1

QA Closed: Date:



WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval _____		
Description Work Order Dev _____									
DART AEROSPACE Container No: S104833 Part: D412-742-013 Job No: 175921 Serial No/Batch: S104833 Revision: A Inspector: _____ Exp Date: _____ Instructions: FAA STC SRD1583SE 15/01/2021 STC SH05- Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7 CANADA TEL: 1 613 632-5200 Email: sales@dartaero.com www.dartaerospace.com								Completed By _____	
								Lead hand / Supervisor Approval Verification _____	
								QC / QA Coordinator Approval _____	
Root Cause									
Environment ☐	☐ No Re-verification	Pre ☐					Positioned Wrong ☐		
Design ☐	☐ Operator	Ben ☐					Outside Dimensions ☐		
Doc/Data ☐	☐ Offset/Setup	Cer ☐					Over/Under tolerance ☐		
Equip/Tooling ☐	☐ Supplier	Cra ☐					Part Incorrect ☐		
Handling/Pre ☐	☐ Training	Crimp/Kink/Ripple/Wave ☐	Inspection incomplete ☐			Part Lost/Missing ☐			
Material ☐	☐ Use for Testing	Cuffs ☐	Contamination ☐	Out of Sequence ☐		Part Moved ☐			
Internal Transport ☐	☐ Poor Information	Crushing ☐	Countersink ☐	Off-set ☐		Drawing ☐			
Tribal Knowledge ☐	☐ Rushing	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐		Finish ☐			
LOA ☐	☐ Product Improvement	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐		Misread ☐			
Substation ☐	☐ Process Improvement	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐		Turning Sequence ☐			
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER : _____							

AN6C12A	Bolt	8 Ea (8 ea)	110-Start up Operation
D2571	Saddle, Fwd, Out	1 Ea (1 ea)	110-Start up Operation
D2572	Saddle, Fwd, In	1 Ea (1 ea)	110-Start up Operation
D2573	Saddle, Aft, Out	1 Ea (1 ea)	110-Start up Operation
D2574	Saddle, Aft, In	1 Ea (1 ea)	110-Start up Operation
D2747	Set Screw	4 Ea (4 ea)	110-Start up Operation
D2876	Saddle Spacer	2 Ea (2 ea)	110-Start up Operation
D2877	Saddle Spacer	2 Ea (2 ea)	110-Start up Operation
D3403-1	Bushing	8 Ea (8 ea)	110-Start up Operation
D3403-3	Bushing	8 Ea (8 ea)	110-Start up Operation
D3403-5	Bushing	8 Ea (8 ea)	110-Start up Operation
D3405-041	Ground Handling Lug	1 Ea (1 ea)	110-Start up Operation
D3405-043	Ground Handling Lug	1 Ea (1 ea)	110-Start up Operation
D3407-041	Tow Ring	1 Ea (1 ea)	110-Start up Operation
D3417-3	Washer	2 Ea (2 ea)	110-Start up Operation
D3456-1	Washer	1 Ea (1 ea)	110-Start up Operation
D3533-1	Set Screw	2 Ea (2 ea)	110-Start up Operation
D3672-11	Washer	8 Ea (8 ea)	110-Start up Operation
D3672-3	Washer, Phenolic	32 Ea (32 ea)	110-Start up Operation
D3672-9	Washer	8 Ea (8 ea)	110-Start up Operation
D412-742-043	Repl. Skidtube Fits LH or RH, High Gear, DART (Apical) Tri-Bag Float Comp.	1 Ea (1 ea)	110-Start up Operation
MS21043-3	Nut	13 Ea (13 ea)	110-Start up Operation
MS21043-4	Nut	29 Ea (29 ea)	110-Start up Operation
NAS1149C0332R	Washer	26 Ea (26 ea)	110-Start up Operation
NAS1149C0432R	Washer	32 Ea (32 ea)	110-Start up Operation
NAS1149C0632R	Washer	8 pcs (8 ea)	110-Start up Operation

5062376

5072785

5072786

5077017

5094538

5050339

5088891

5057899

5074284

5045146

5051140

5050276

5054677

5089845

5104544 *

F149290

5079335

5050331

F133082X7 F153353X1

5027022

F133084

5103641

5082543

5089277

5049837X12 5104354X14

5050052

F1136318.0x5 5043776x3

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Start up Operation	AN3C37A	1	17	0
	AN3C40A	1	65	0
	AN3C41A	1	473	0
	AN3C42A	1	51	0
	AN3C43A	4	49	0
	AN3C46A	5	197	0
	AN4C47A	4	60	0
	AN4C52A	4	31	0
	AN4C53A	4	59	0
	AN4C6A	16	427	0
	AN4C7A	4	93	0
	AN6C12A	8	50	0
	D2571	1	23	0
	D2572	1	20	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition			Completed By																		
							Lead hand / Supervisor Approval Verification																		
							QC / QA Coordinator Approval																		
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____																		

D2573	1	15	0
D2574	1	11	0
D2747	4	318	0
D2876	2	55	0
D2877	2	74	0
D3403-1	8	1	0
D3403-3	8	56	0
D3403-5	8	59	0
D3405-041	1	35	0
D3405-043	1	36	0
D3407-041	1	37	0
D3417-3	2	18	0
D3456-1	1	127	0
D3533-1	2	202	0
D3672-11	8	542	0
D3672-3	32	1,244	0
D3672-9	8	862	0
D412-742-043	1	1	0
MS21043-3	13	924	0
MS21043-4	29	745	0
NAS1149C0332R	26	6,679	0
NAS1149C0432R	32	2,673	0
NAS1149C0632R	8	195	0

Part Specifications

Specifications could not be found.

Plex 4/12/18 11:29 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Root Cause		FAULT CATEGORY																			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																			
Misidentified ☐	Past Due ☐																				

(CONTINUED FROM PAGE 21)

Item	Qty -013	Qty -043	Part Number	Description
40	1		D2571	SADDLE, FWD OUTSIDE
41	1		D2572	SADDLE, FWD INSIDE
42	1		D2573	SADDLE, AFT OUTSIDE
43	1		D2574	SADDLE, AFT INSIDE
44	2		D2876	SADDLE SPACER
45	2		D2877	SADDLE SPACER
46A	8		D3403-1	BUSHING
46B	8		D3403-5	BUSHING
47A	4		D2747	SET SCREW
47B	2		D3533-1	SET SCREW
48	16		AN4C6A	BOLT
49A	4		AN4C52A	BOLT
49B	4		AN4C53A	BOLT
50	8		AN6C12A	BOLT
51A	32		D3672-3	WASHER (REPLACES NAS1515H4L)
51B	32		AN960C416L	WASHER
52A	8		D3672-9	WASHER (REPLACES NAS1515H6L)
52B	8		AN960C616L	WASHER
53	8		D3672-11	WASHER (REPLACES NAS1515H7L)
54	24		MS21043-4	NUT
55	4		AN4C7A	BOLT
56	2		D3591-1	BUSHING
60	8		D3403-3	BUSHING
61	1		D3405-041	GHW LUG
62	1		D3405-043	GHW LUG
63	4		AN4C47A	BOLT
64	4		MS21043-4	NUT
70	1		D3407-041	TOW RING
71	2		D3417-3	WASHER
72	1		MS21043-4	NUT
73	1		D3456-1	WASHER
91	1		AN3C37A	BOLT
92	1		AN3C40A	BOLT
93	1		AN3C41A	BOLT
94	1		AN3C42A	BOLT
95	4		AN3C43A	BOLT
97	5		AN3C46A	BOLT
99	26		AN960C10L	WASHER
100	13		MS21043-3	NUT

*DENOTES PART IS INCLUDED WITH D3391-043 ASSEMBLY ABOVE

**DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE

REFERENCE ONLY

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